State of Nevada

Department of Health and Human Services

Establishment of Eligibility Engine to Support Publicly-Subsidized Health Coverage Programs

Evaluation and Cost Estimate

August 24, 2010

Version History

Version	Date	Comments
NV DWSS report 081610 v1	August 16, 2010	PCG delivered first draft of final report to DWSS
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NV DWSS report 82410 final draft	August 24, 2010	PCG delivered final draft to DHHS, DHCFP and DWSS management for review.
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1. Executive Summary

In March 2010, the Patient Protection and Affordable Care Act (PPACA) was passed by Congress and signed by the President. The Health Care Reform law mandates the creation of Health Insurance Exchanges that allow consumers to access and evaluate plans from commercial insurers and to apply for health subsidy programs (e.g., Medicaid, CHIP, premium subsidies through the Exchange) that best meet their needs by submitting an application online, in person, through the mail, or over the phone by January 2014. To that end, the Nevada Department of Health and Human Services is proposing the development and implementation of a new system that will store all of the eligibility rules for the State's publicly-subsidized health coverage programs in one place and that will be accessible to individuals shopping for health coverage from multiple entry points, such as the Health Insurance Exchange. In preparation for that, the Department of Welfare and Supportive Services (DWSS) and the Division of Health Care Financing and Policy (DHCFP) asked the Public Consulting Group (PCG) to conduct an initial assessment of this approach and to prepare a high-level cost estimate for developing and implementing a single eligibility engine in Nevada.

To conduct this analysis, the PCG project team reviewed materials that document the DWSS' current program and technical environments. The project team also met with staff from the DWSS and the DHCFP to better understand the current environment and to identify the changes that would be required to implement a new eligibility engine. This information was then considered in light of the project team's experience in developing cost estimates for other systems development projects, knowledge of industry best practices, and familiarity with the Health Care Reform law to identify critical decisions that Nevada needs to make to implement the Health Insurance Exchange's eligibility requirements and prepare a high-level cost estimate for developing the eligibility engine.

The successful establishment and operation of Health Insurance Exchanges across the country will likely determine whether the Health Care Reform law will meet its goal of extending coverage to tens of millions of Americans. In order to successfully implement the law, Nevada will need to decide whether to establish an Exchange (at the state level vs. relying on a federal exchange); how a state Exchange would be governed and administered; how it would be financed; and the manner in which the Exchange would interface with Nevada's Medicaid and CHIP Programs. Should Nevada decide to implement its own Exchange, the development of an eligibility engine will be critical to its success.

The proposed eligibility engine will determine an individual's eligibility for all publicly-subsidized health coverage programs, including Medicaid, Nevada Check Up (i.e., the State's CHIP program), a Basic Health Program (which may be offered at the State's discretion) and premium subsidies for commercial health insurance purchased through the Exchange. In so doing, the eligibility engine

will facilitate a "no wrong door" (i.e., allowing individuals to access health insurance in a variety of ways, and through multiple entry points) approach that will make health coverage and health insurance easily accessible to all.

Extracting the business rules out of the aging Nevada Operations of Multi-Automated Data Systems (NOMADS) system in order to share those, with new business rules, in a central repository that is more dynamic and flexible is a critical component of Nevada's approach to implementing the Health Care Reform law. Based on PCG's initial assessment, the cost of developing and implementing an eligibility rules engine to serve all publicly-subsidized health coverage programs is estimated to be $23.8 million in one-time costs and $3.8 million in ongoing costs. At this very early phase of the development cycle the preliminary cost estimate has an approximate margin of error of +/- 25% knowing that the initial estimate will be refined during the feasibility study. One-time costs are comprised of the costs associated with State personnel, contractor services, hardware and software, Nevada Department of Information Technology (DoIT) services, telecommunications, enhancements to NOMADS, and the integration with existing systems and programs (e.g., MMIS, Nevada Check Up). Ongoing costs are comprised of annual maintenance and operation expenses.

In order to meet the January 2014 deadline to have a streamlined eligibility system in place to serve all publicly-subsidized health coverage programs that may be available to Nevadans, the State will need to act aggressively. Project planning activity will need to begin by November 1, 2010. The feasibility study and Advanced Planning Documents (APDs) will need to be completed by the end of Calendar Year 2011 in order to develop and release an RFP for the design and development of the eligibility engine. This accelerated timeline then allows for approximately one year for a vendor to establish a rules-based eligibility engine that will serve as the single point of entry for individuals seeking coverage through the State's Medicaid and CHIP programs, as well as the premium subsidies that may be available through the Exchange.

2. Purpose, Scope, Approach

The purpose of this project is to assist the Nevada Division of Welfare and Supportive Services (DWSS) in evaluating an eligibility engine concept that the DWSS developed to meet the requirements of the federal Health Care Reform law. The proposed eligibility engine will serve to determine eligibility for all publicly-subsidized health coverage programs, including the premium subsidies available under the Health Insurance Exchange, Medicaid, CHIP, and the Basic Health Program (which may be offered at the State's discretion).

The project scope includes:

- Reviewing the requirements for a single portal under federal Health Care Reform law and analyzing the proposed eligibility engine model.
- Providing a high-level overview of current infrastructure, applications, interfaces, and business processes that are presently used to determine eligibility for publicly-subsidized health coverage programs.
- Identifying methods of extending the Nevada Operations of Multi-Automated Data Systems (NOMADS) life expectancy from technical, functional, and volumetric (in terms of the anticipated increase in caseload volume) perspectives.
- Developing budget estimates for the design, development, and implementation of the eligibility engine.
- Developing budget estimates for acquiring consulting services to assist with a feasibility study, preparing an Implementation Advanced Planning Document (I-APD), and developing a Request for Proposal (RFP) to hire a vendor to perform the design and implementation work.
- Developing a timeline for completing the eligibility engine project in time to meet the January 1, 2014 effective date, as required by Health Care Reform law.
- Preparing a final report to summarize and document the project outcome and results.

To complete this project, the PCG project team performed the following tasks:

- Reviewed existing documentation provided by the program and Information Technology (IT) areas.
- Met with program and IT subject matter experts to discuss and modify/refine the model proposed for the eligibility engine.
- Met with the DWSS and the Division of Health Care Financing and Policy (DHCFP) management to discuss the proposed model, project assumptions, and vet preliminary findings.

- Met with the DWSS and DHCFP budget staff to ensure cost data was provided at the appropriate level of detail suitable for budgetary review and approval through the normal legislative process.
- Developed workflow diagrams to depict the process of applicants applying for medical insurance through the Health Insurance Exchange.

3. Assumptions

At the outset of this project, it became necessary to establish assumptions upon which the development of the proposed model and estimated costs were to be based. Once developed, the assumptions were vetted with the DHCFP and DWSS management to ensure agreement and buy-in. The agreed upon assumptions include:

- This project focuses on establishing a "no wrong door" process to determine eligibility for publicly-subsidized health coverage programs including Medicaid, CHIP, a Basic Health Program (that may be offered at the State's discretion), and premium subsidies[1] for commercial health insurance purchased through the Health Insurance Exchange (Exchange).
- The eligibility engine will be administered by the DWSS. A modular approach will be taken towards developing the eligibility engine such that it will be transportable to another entity, should the need arise. Functionality of the eligibility engine will be limited to determining eligibility, and will not include other functions (such as case management, applicant verification, etc.) that currently exist in NOMADS.
- Governance and administration of the Exchange are unknown at this time. Under federal Health Care Reform, the Exchange may be administered on a regional, state, multi-state, or federal basis. In addition, the Exchange administrator may be a government agency or a non-profit entity established by the State. These governance and administration issues have not yet been determined by Nevada officials.
- The eligibility engine will determine eligibility for publicly-subsidized health coverage programs only, including Medicaid, CHIP, a Basic Health Program (that may be offered at the State's discretion), and premium subsidies for commercial insurance purchased through the Exchange. Although the eligibility engine will not determine eligibility for other public assistance programs (e.g., SNAP, TANF, and the Energy Assistance Program), it will be designed to provide an indication of an individual's eligibility for these public assistance programs and direct them to where they might apply.
- The eligibility engine will not determine eligibility for employers or groups that may wish to purchase coverage through the Exchange's Small Business Health Options Program (SHOP).

[1] Members eligible for premium subsidies through the Exchange may also be eligible to enroll in health plans with reduced out-of-pocket limits. We assume these benefits design issues will be administered by the Exchange. The Eligibility Engine will be responsible for capturing and transferring to the Exchange information pertaining to the applicant's Federal Poverty Level (FPL). The applicant's FPL will then be used by the Exchange to determine eligibility for health plans with reduced out-of-pocket costs.

- The eligibility engine must be operational prior to January 1, 2014, the start date for premium subsidies through the Exchange and the effective date for expansion of Medicaid eligibility. In order to have the eligibility engine operating by this date, a feasibility study will need to be completed in an expedited fashion. In addition, the Nevada Technology Investment Request (TIR) and the federal Advanced Planning Document (APD) will need to be completed and reviewed under a shortened time frame.
- The eligibility engine will be rules-based.
- The provision of subsidies, as well as premium billing and collection, will be a function of the Exchange.
- NOMADS and/or other associated systems and interfaces will be modified and/or enhanced to support the needs of Health Care Reform. The need to modify or enhance the NOMADS system will be assessed as part of the feasibility study.
- NOMADS will continue to determine eligibility for SNAP, TANF, and other public assistance programs that it currently supports.
- NOMADS will continue to serve as the system of record for Medicaid, SNAP, TANF, and other public assistance programs that it currently supports.
- NOMADS will serve as the system of record for individuals and families receiving premium subsidies for commercial health insurance purchased through the Exchange and for CHIP.
- Health Care Reform will require the establishment of a multi-department governance structure and process at both the policy and information technology levels.

4. Current Environment

4.1. Program

This section provides program information related to the Nevada DHCFP and the DWSS, both of which are located within the Nevada Department of Health and Human Services.

DHCFP

The mission of the Nevada DHCFP is to: 1) purchase and provide quality health care services to low-income Nevadans in the most efficient manner; 2) promote equal access to health care at an affordable cost to the taxpayers of Nevada; 3) restrain the growth of health care costs; and 4) review Medicaid and other state health care programs to maximize potential federal revenue. The DHCFP is a Division of government within the Nevada Department of Health and Human Services. Created in 1997, the DHCFP has 246 staff with offices in Carson City, Las Vegas, Reno, and Elko.

The DHCFP administers two major federal health coverage programs, Medicaid and State Health Insurance for Children Program or CHIP, that provide health care to eligible Nevadans. The largest program is Medicaid, which provides health care to low-income families, as well as aged, blind, and disabled individuals. The CHIP program in Nevada is known as Nevada Check Up, and provides healthcare coverage to low-income, uninsured children who are not eligible for Medicaid.

Nevada Check Up began providing services to children in October 1998. Enrollment peaked at nearly 30,000 in State Fiscal Year (SFY) 2008, but has since declined. In July 2010, the DHCFP reports that 21,469 children were enrolled in Nevada Check Up. Eligibility determinations are completed at the central office of Nevada Check Up in Carson City and at district offices in Reno and Las Vegas. The current Nevada Check Up application and eligibility determination process is as follows:

- Families complete a paper application and submit it to Nevada Check Up eligibility workers, along with proof of income.
- Eligibility workers review the application, calculate an estimated annual income for the family, and determine eligibility.
- When all requirements (including legal residency, non-Medicaid eligible children, etc.) are met, the children are enrolled and the families are notified of the premium due.

Coverage begins the first day of the next administrative month, following the date of the initial determination.

DWSS

The mission of the Nevada DWSS is to provide quality, timely, and temporary services enabling Nevada families, the disabled, and the elderly to achieve their highest levels of self-sufficiency.

The DWSS is a division of government within the Nevada Department of Health and Human Services. With an annual budget of approximately $250 million, the DWSS accounts for the third largest budget within the Department of Health and Human Services. The Division has approximately 1,250 employees in over 20 locations across the State.

Programs that the DWSS oversees include: 1) the Temporary Assistance for Needy Families (TANF) Program; 2) the Supplemental Nutrition Assistance Program (SNAP) (formerly known as the Food Stamp Program); 3) the Child Support Enforcement Program; 4) the Child Care Assistance Program; 5) the Employment and Training Programs for TANF and SNAP recipients; 6) the Energy Assistance Program (EAP); and 7) eligibility for Nevada's Medicaid Program.

As of June 2010, Nevada Medicaid covered 255,041 individuals including pregnant women, children, the aged, blind, and/or disabled, and people who are eligible to receive federally assisted income maintenance payments.

To obtain Medicaid services, individuals can go onto the Internet and submit an application electronically (beginning in December 2010) through Access Nevada (described below). Individuals who are not applying electronically can request an application and apply through the mail or visit a local office. This process includes:

- Every person will be mailed or given a paper application and a pamphlet explaining the Medicaid program. Applicants will receive assistance in completing the application, if such help is requested.
- Initial requests for an application for assistance may be made verbally, in writing, in person, or through a representative. A faxed application is acceptable and must be date-stamped the day it is received to protect the applicant's filing date.
- The application date and information must be registered in NOMADS within two (2) work days.
- Federal law allows the DWSS 45 days from the date of application to process Medicaid applications and 90 days for applications for disabled individuals. Coverage begins the first day of the month in which the applicant is found eligible.

4.2. Technical

For the purposes of this report, the core systems that currently support the enrollment and eligibility determination functions of Nevada's Medicaid Program are briefly described below and include the following:

- Access Nevada (Access NV)
- Nevada Application Modernization and Productivity Services (AMPS)
- Nevada Operations of Multi-Automated Data Systems (NOMADS)

ACCESS NV

The Access NV system is an Internet (public-facing) application that allows clients to apply for benefits online. The Access NV system provides a simple solution for the public to inquire and apply for public assistance and benefits from any location with Internet access. Through Access NV, applications are pre-screened – based on a simple set of pre-eligibility rules – for potential eligibility for SNAP, TANF, and/or Medicaid services.

The Access NV technical architecture is based on a standard web-enabled technical model. The technical implementation of the application is split across the following tiers:

- Presentation Tier
- Business Logic Tier
- Database Tier

The Presentation Tier is further split into the end user presentation-rendering component fulfilled by a desktop web browser such as Microsoft's Internet Explorer and the presentation generation (web page generation) component that is fulfilled by the WebSphere Portal Server product installed on hardware located at the Nevada Department of Information Technology (DoIT) data center.

The Business Logic Tier is constructed using the Java programming language conforming to the Java 2 Platform Enterprise Edition (J2EE) application model and executed in the run-time environment by IBM's WebSphere Application Server product. This tier is deployed across a suite of IBM AIX-based Application Servers located at the DoIT data center.

The Database Tier is fulfilled by the IBM DB2 database management system deployed on Database Servers located at the DoIT data center. Both Access NV and AMPS use Novell iManager and iChain for ID Management (IdM) and role-based access control (RBAC).

Once the user has entered their application into the Access NV database, the AMPS system pulls the applicant's data from the Access NV database (via a database listener in the AMPS system) into the AMPS database so that it can be incorporated into the AMPS workflow and displayed in the eligibility worker's

inbox (see description below). Eligibility workers can then pick up the application from their inbox and process it through the AMPS system.

A depiction of how applications are pulled from Access NV into AMPS is provided below[2].

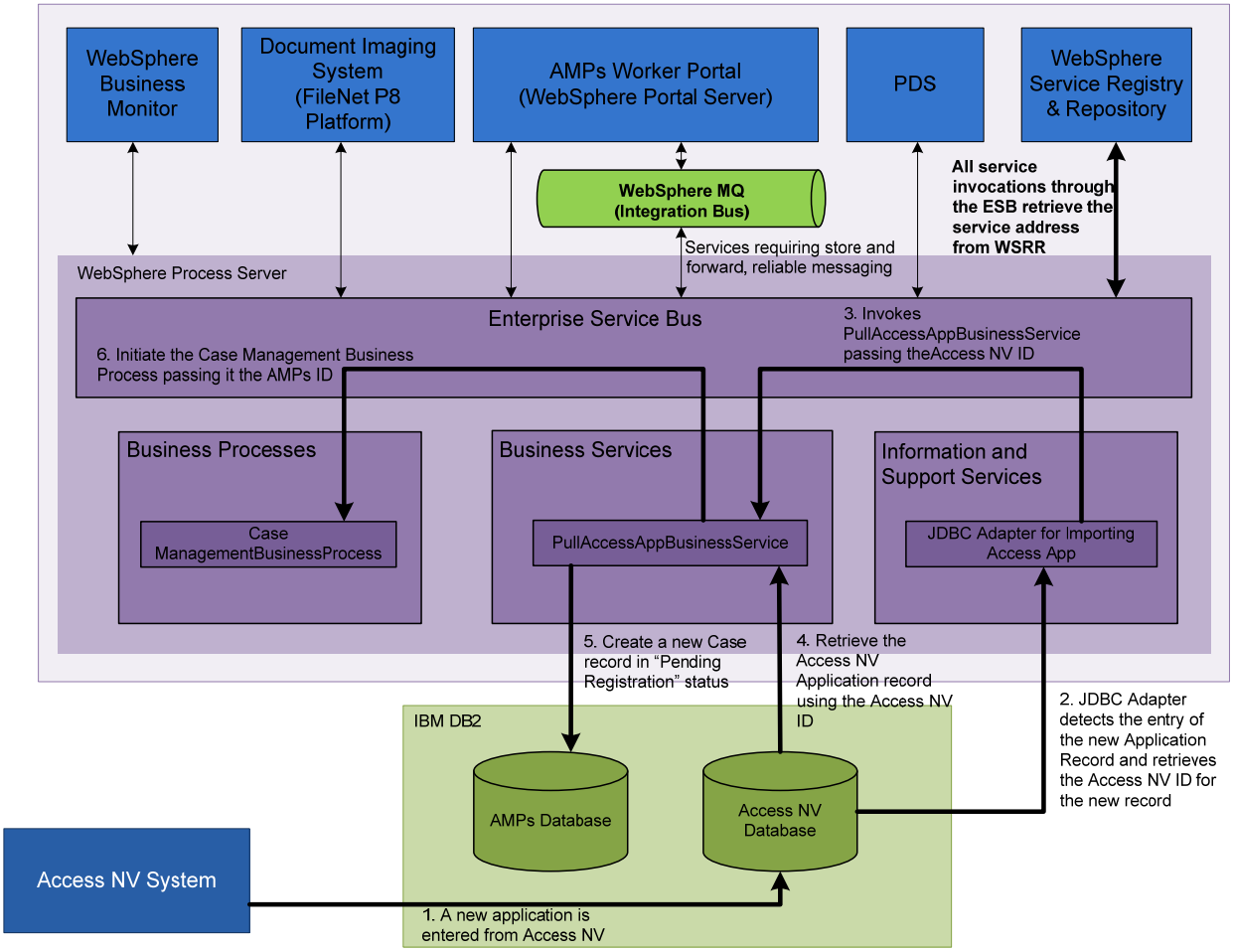

Figure 4-1: Pulling Data from Access Nevada into AMPS

AMPS

Nevada AMPS is a system designed to enhance worker productivity for processing benefit cases for SNAP, TANF, and Medicaid. The AMPS is a Java/J2EE and DB2 application employing a Service-Oriented Architecture (SOA). This provides a flexible and extensible system to serve as the front-end of the NOMADS. As such, AMPS submits all case and member information to NOMADS via information services that expose NOMADS functionality.

[2] Source: Technical Design Document, Nevada AMPS, Deloitte Consulting, June 2010.

The AMPS technical architecture is very similar to the Access NV architecture. The users interact with the application through a desktop web browser. The web browser communicates with the WebSphere Portal Server running on AIX to provide business logic and services processing. AMPS uses iLog jRules for running eligibility determination rules. The data is stored in the DB2 database management system.

The AMPS notifies workers (via workflow tools) of applications in the queue and allows workers to review/validate application data that is temporarily stored in the AMPS database. The system interaction diagram for registering a new case – either pulled in as a new application from Access NV or directly entered into AMPS from a paper application in NOMADS – is provided below.

As noted in the diagram, NOMADS serves as the “system of record” for the applicant once the case is registered.

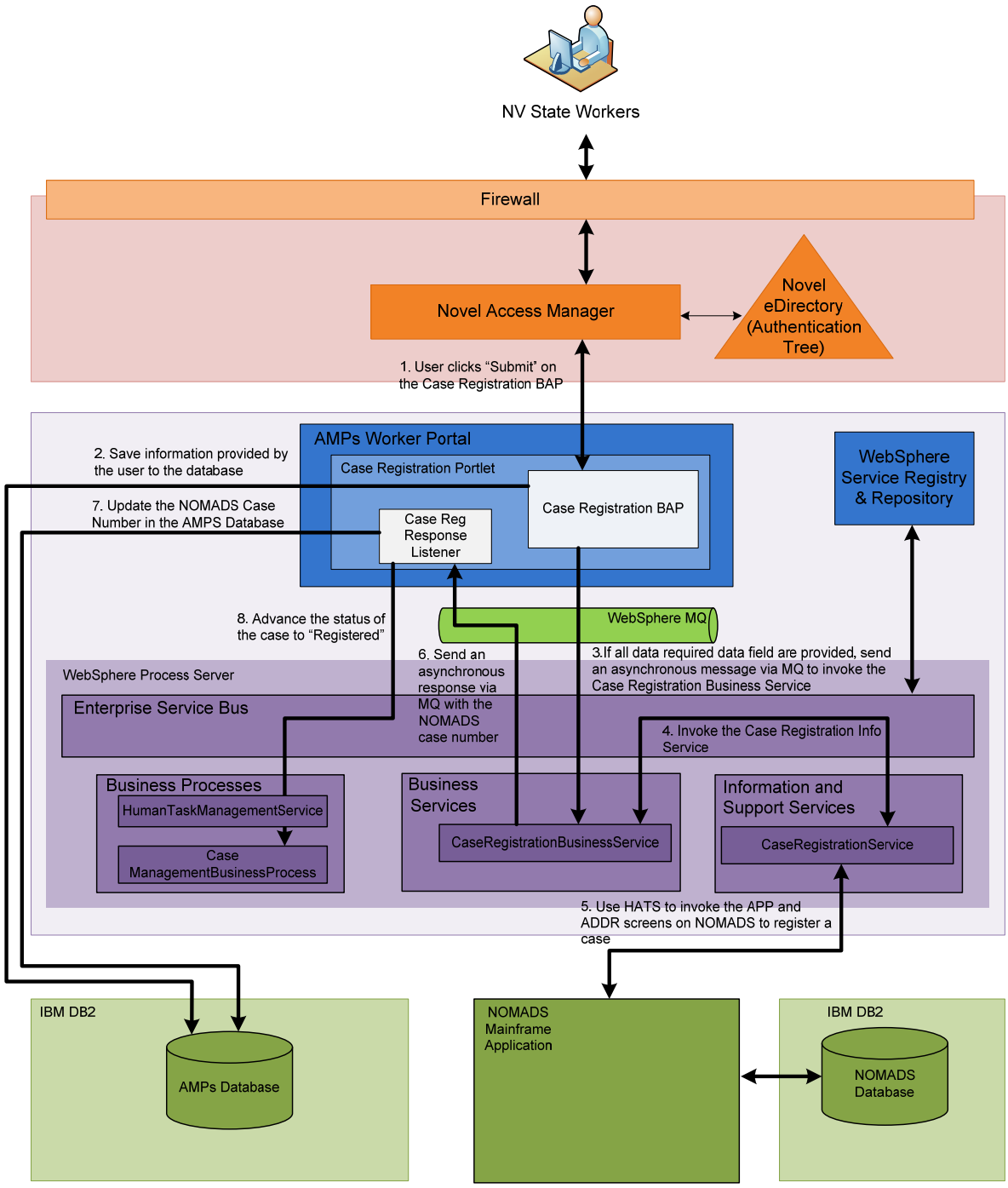

Figure 4-2: Registering a Case in NOMADS

NOMADS

The NOMADS application is a federally-certified system used to support Child Support, SNAP, TANF, Medicaid eligibility, and Employment and Training at the DWSS. The NOMADS is a monolithic mainframe application, written in IBM's Cross System Product (CSP) and COBOL, and uses a DB2 database. The

database stores approximately 85 gigabytes (GB) of case and client information. Implemented in 2001, NOMADS is used for eligibility determination, case processing, and case management, and serves as the "system of record" for all case and member-related information. The DoIT hosts and maintains the NOMADS infrastructure and the DWSS maintains the NOMADS application. NOMADS uses IBM Resource Access Control Facility (RACF) for ID Management and role-based access control (RBAC).

The NOMADS mainframe / database environment is depicted in the figure below.

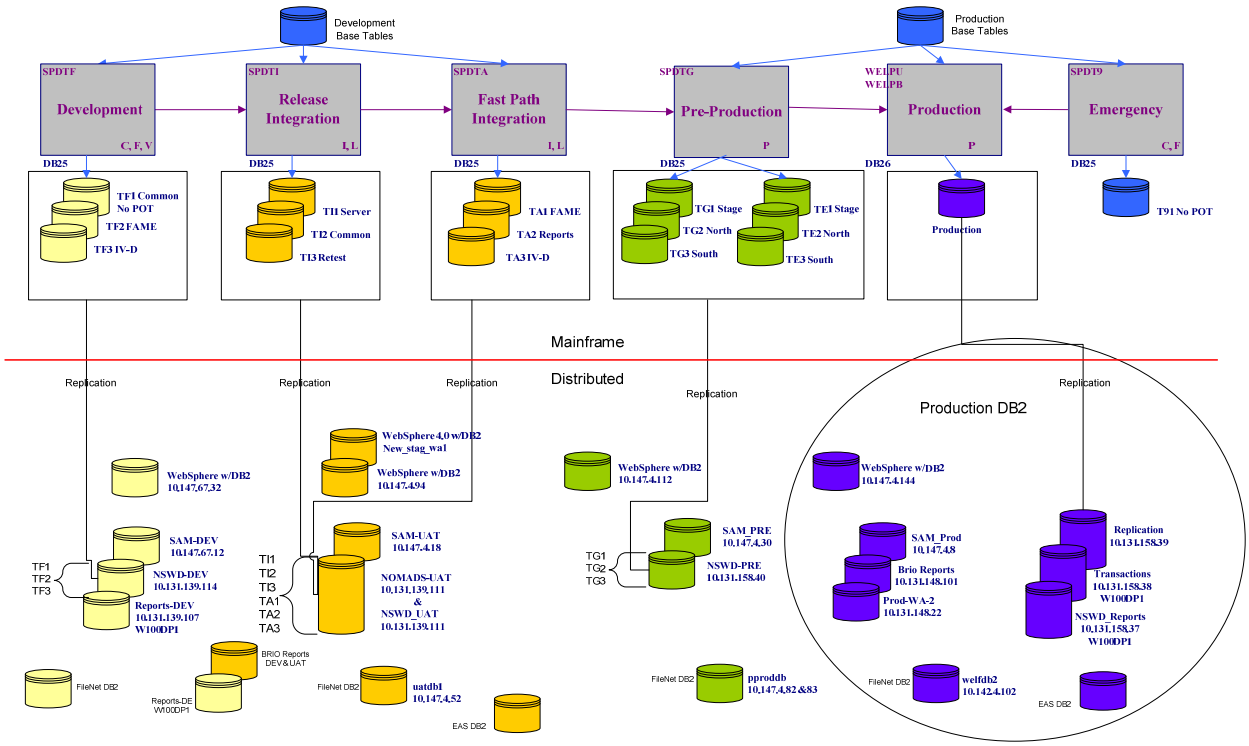

Figure 4-3: NOMADS Mainframe / Database Environment

4.3. Extending the life of NOMADS

With the expansion of Medicaid eligibility slated to take place in January 2014, the number of Medicaid recipients may increase by as much as 136,000, or 60% by 2019.[3] Given that, it will be imperative for Nevada to have an eligibility system in place to support the increased number of recipients and perform the necessary administrative functions.

[3] "Medicaid Coverage and Spending in Health Reform: National and State-by-State Results for Adults at or Below 133%FPL," Kaiser Commission on Medicaid and the Uninsured, May 2010.

Nevada's automated eligibility system, NOMADS, began design in 1992 and was fully implemented in 2001. Acquired as a transfer system from the State of Rhode Island, NOMADS lacks several critical functions that have never been fully operational. Based on recent studies, NOMADS limitations include, but are not limited to, the following:

- While NOMADS is able to determine eligibility for most of the TANF, SNAP, and Medicaid cases, multiple manual workarounds are required to resolve the more difficult cases.
- Because NOMADS is unwieldy and is not user-friendly, six months of training are required for the DWSS to use the system. In addition, DWSS staff indicate that NOMADS requires duplicate data entry and provides inaccurate reports.
- NOMADS is written in Cross System Product (CSP), which has not been supported by the vendor since 2001. This problem is intensified by two factors – 1) a workforce with CSP skills that is retiring or is close to retirement age; and 2) a steep learning curve (one year or more) for new programmers – that will significantly impact the DWSS' ability to keep the system up and running in the coming years.
- Adding a program or additional interfaces to NOMADS can require up to a year from initial design to deployment and can be very expensive. For planning purposes, the DWSS generally budgets $100,000 for the addition of a single aid code.
- NOMADS is reaching capacity due to the caseload growth experienced during the current recession. With the increase of new eligibility records, the NOMADS system will be stressed and system availability may be reduced to unacceptable levels due to batch processing time window constraints.

Recommendation

While it has been the DWSS' desire to replace NOMADS, the Division was informed during the 2009 Nevada Legislative Session that it is the preference of the Legislature to continue to use NOMADS and modernize the application currently in place.

In light of the Legislature's preference to maintain NOMADS, the DWSS has taken a modularized approach to addressing the system's inadequacies. Over time, core functionalities are being extracted from NOMADS and moved into re-usable applications that are more flexible, robust, and/or user-friendly, as exhibited in the development of AMPS, the creation of Access NV, and, now, with the proposed creation of a rules-based eligibility engine. Over time, NOMADS will devolve into a data repository that stores member information for the programs that the DWSS supports.

PCG recommends that the DWSS should proceed with migrating NOMADS from CSP to EGL in order to address its end-of-life software issues. Due to the lack of vendor support, if the DoIT encounters incompatibility or security issues that require updates to the mainframe operating system, the DWSS will be forced to migrate to EGL on an expedited schedule. As the NOMADS system is of considerable size and age, this will present considerable challenges – particularly if done under extreme time pressures.

This type of wholesale change to an application of the age of NOMADS will require more CSP resources – as the application will need to be continuously updated to handle new legal and legislative mandates alongside the conversion effort. Any software migration effort is fraught with risk, but one done on an expedited schedule, with little opportunity for schedule slippage, exacerbated by a lack of experienced resources, is a recipe for headline grabbing disaster.

5. Patient Protection and Affordable Care Act (PPACA)

In March 2010, the Patient Protection and Affordable Care Act was passed by Congress and signed by the President. The Health Care Reform law mandates the creation of Health Insurance Exchanges that will allow consumers to access and evaluate plans from commercial insurers and to apply for health subsidy programs (e.g., Medicaid, CHIP, premium subsidies through the Exchange) that best meet their needs through an online marketplace. As such, Exchanges are a central part of Health Care Reform, facilitating coverage for millions of people across the country starting in 2014.

5.1. Role of the Eligibility Engine under PPACA

The federal Health Care Reform law expects states to use a "single, streamlined form that: may be used [by individuals] to apply for all applicable State health subsidy programs within the State; may be filed online, in person, by mail, or by telephone; may be filed with an Exchange or with State officials operating one of the other applicable State health subsidy programs; and is structured to maximize an applicant's ability to complete the form satisfactorily, taking into account the characteristics of individuals who qualify for applicable State health subsidy programs."

In short, states are expected to establish a single application/entry point – possibly feeding into a single eligibility engine – to determine eligibility for Medicaid, CHIP, the Exchange, and any other subsidized health insurance programs. In states like Nevada with separate Medicaid and CHIP programs that operate under different eligibility rules and process applications through different eligibility systems, establishing a single portal (i.e., single eligibility engine) will require an upgrade to its existing eligibility systems or the development of a new eligibility system to process applications and determine eligibility.

The intent is that an individual will supply a limited amount of information that will then be used to determine whether he/she is eligible for coverage under any of the medical assistance programs available in the State. The elimination of the asset test for most Medicaid recipients (and no asset test for premium subsidies through the Exchange) will likely reduce the amount of information that will need to be collected to determine eligibility.

The federal government will be issuing regulations regarding the single portal eligibility system and is also charged with developing a standard eligibility form for use by the states. However, the State of Nevada will need to start planning for the development of a system that can process applications and determine eligibility for all subsidized health insurance programs. In addition, a mechanism to capture and store eligibility and enrollment information for all publicly-

subsidized health coverage programs will be needed to minimize the potential for individuals to be covered under more than one program simultaneously.

5.2. What the State is Trying to Achieve

Currently, Nevada operates two separate and distinct eligibility systems to determine eligibility for its Medicaid program and its CHIP program (Nevada Check Up). The DWSS operates and maintains the eligibility system for the State's Medicaid program, while the DHCFP operates and maintains the Nevada Check Up eligibility system. Individuals must complete separate applications for Medicaid and CHIP.

To establish a streamlined, single application to determine eligibility for an expanded Medicaid program, the Nevada Check Up program, the Basic Health Program (that may be provided at the State's discretion), and premium subsidies that will be available through the Exchange, Nevada DWSS and DHCFP are considering the development of a single eligibility engine that will be used to process applications for all medical assistance programs.

6. Models Considered

This section briefly describes models that were considered to implement the Health Care Reform law in the State of Nevada. The first model was to replace the NOMADS system with a new system. This model was discarded largely because it would not be feasible to design, develop, and implement an entirely new system by January 1, 2014. The second model, which involves extracting the eligibility rules out of the NOMADS system and placing them into a rules engine, is explained in more detail below.

6.1. Eligibility Engines

A rules engine is a framework for implementing complex business logic. In general, business rules engine products separate the "rules" portion of an application from the rest of the application logic. This allows the bulk of an application to remain the same while the rules portion can be adapted to fit new policies or business rules. Rules engines serve as a way to collect decision-making logic and work with data sets that are usually too large for humans to use effectively. A rules engine can make decisions based on hundreds of thousands of facts quickly, reliably, and repeatedly.

In this project, the rules engine would:

- Store all of the rules to determine eligibility for all publicly-subsidized health coverage programs, including the premium subsidies available under the Health Insurance Exchange, Medicaid, Nevada Check Up, and the Basic Health Program, if applicable.
- Assess whether an individual might be eligible for SNAP, TANF or the EAP, and direct them to where they might apply for these public assistance programs.
- Be accessible to individuals applying for benefits through the Health Insurance Exchange, Access NV, or on paper. The table below provides the benefits of rules engines in general, and shows how those benefits correlate to meeting Nevada's business needs.

Table 6-1: The Benefits of Rules Engines

Using a Rules Engine Can:	In Nevada, this translates into:
• **Lower an application's maintenance and extensibility costs by making it easier to implement complex business logic.** In any IT application, business rules change more frequently than the rest of the application code. Rules engines are pluggable software components that execute business rules that have been externalized from application code.	• Extracting the existing eligibility determination rules out of NOMADS, and moving the Medicaid rules and CHIP rules into the eligibility engine. In addition, new business rules based on the Health Care Reform law would be developed and contained in the eligibility engine. • Avoiding the expensive and time-consuming process of modifying an outdated system

	(NOMADS) as needs arise and regulatory changes occur. • Extending the life of NOMADS. • Allowing business users to modify the rules with minimal IT support.
• **Facilitate knowledge-transfer to a centralized repository and help to combat issues due to the loss of key decision makers, managers, and subject matter experts from 'normal' turnover rates and aging baby-boomer populations.**	• Addressing the aging IT and program workforce problems. • Migrating away from a programming language that is no longer supported by the vendor. • Building new skill sets among IT and program staff.
• **Help to customize product and service offerings for customers and partners on an individual basis and to centralize the core logic allowing you to tailor the logic quickly and efficiently to the demands of ever-changing markets.**	• Providing greater flexibility in responding to policy changes and legislative demands. • Being more responsive to the changing needs of Health Care Reform.
• **Create a knowledge-base that serves as a single "point of truth" for business policy.**	• Improving data integrity and reporting accuracy. • Assuring consistency in eligibility determination processing when applicants attempt to access services through different entry points. • Eliminating the potential for conflicting eligibility rules that may exist across multiple systems and platforms. • Storing eligibility rules for Medicaid, Nevada Check Up, the Basic Healthcare Program, if applicable, and premium subsidies available through the Exchange in one place.
• **Reduce time to deliver and overall cost by separating the business rules from the application logic.**	• Increasing flexibility. • Leveraging existing legacy systems. • Reducing system enhancement costs in the long-term. • Improving customer service and user satisfaction. • Positioning the DWSS to be able to incorporate rules for SNAP and TANF in the eligibility engine in future years.

Further information on how the proposed eligibility engine model will work to support the implementation of the Health Care Reform law in Nevada is provided in Section 7 below.

6.2. Health Insurance Exchanges

6.2.1. Overview

The successful establishment and operation of Health Insurance Exchanges will likely determine whether the health care reform law will meet its goal of extending coverage to tens of millions of Americans. The American Health Benefits Exchange (for individuals) and the Small Business Health Options (SHOP) Exchange (for small employers) are designed to serve as central points of access to commercial health insurance for millions of individuals and small employers.

By the end of Calendar Year (CY) 2013, individuals and small employers should be able to shop for insurance from a range of health plans offered through the Exchange. Lower and middle-income individuals with income up to four times the Federal Poverty Level (FPL) – more than $88,000 for a family of four in CY 2010 – may be eligible for premium subsidies for commercial health plans, with limits on point-of-service cost sharing and caps on out-of-pocket expenses. Small employers with lower-income workers that provide employer-sponsored insurance (ESI) may also be eligible for premium subsidies for up to two years.

In order to meet the January 2014 effective date, Nevada will need to create the necessary infrastructure and put in place policies and procedures to effectively enroll people in coverage efficiently and effectively through the Exchange. While the federal law sets broad parameters for the Exchange and federal regulations will provide additional guidance, the State will need to make a number of key decisions regarding the establishment and operation of the Exchange. The items listed below represent only the top-line issues that Nevada will need to consider and plan for as part of a larger effort to design and develop the Exchange.

6.2.2. Key Decisions for the State

As Nevada moves forward to implement the various provisions of Health Care Reform, there are a number of critical decisions that must be made. Those decisions are discussed below in the following areas:

- Whether to establish a state-based Exchange
- Governance and administration of the Exchange
- Financing for the Exchange
- The manner by which the Exchange will need to interface with the State's Medicaid and CHIP Programs

Whether to Establish a State Exchange

While the Health Care Reform law provides states with flexibility and some federal funding to establish and operate an Exchange, an immediate decision for

Nevada is whether to establish an Exchange at all, or to allow the federal government to do so.

To ensure that residents of every state have access to insurance through an Exchange, the law requires the federal Secretary of Health and Human Services to determine by January 2013 whether a state has taken the actions necessary to implement an Exchange (i.e., adopt necessary laws and regulations related to the Exchange) or whether a state, despite adopting the necessary laws and regulations, is unlikely to have an Exchange operational by January 1, 2014. For states that choose not to or are unable to establish an Exchange by the "go live" date, as determined by the Secretary, the federal government will establish and operate an Exchange within those states.

Nevada will need to weigh the pros and cons of deferring to the federal government the responsibility of operating the Exchange. On some levels this may appear appealing. Establishing an Exchange will require substantial effort and may consume scarce financial resources.

A key factor in whether Nevada decides to establish an Exchange will be the level of funding available from the federal government through planning and establishment grants. The extent to which state funds will be necessary to augment the federal allotment will be a contributing factor with regard to the establishment and operation of a state-based Exchange.

In late July 2010, the federal government announced the availability of up to $1 million per state in grants to assist with the planning and establishment of state-based Exchanges. Nevada plans to submit an application to access these funds, with the application due by September 1, 2010.

In addition to financial considerations, there are a number of policy issues to take into account. First and foremost, health insurance regulation has largely been – and will continue to be – the responsibility of state governments. Given the central role that the Exchange will play as a distribution network for commercial insurance, Nevada may be loathe to relinquish regulatory authority over what will likely be a sizeable share of the commercial health insurance market.

The Exchange can also be a tool for Nevada to advance other health care priorities such as payment reform, the development and promotion of health homes, accountable care organizations, consumer-directed health insurance, or the establishment of select or tiered hospital and physician networks. The combined volume of lives covered by the Exchange and Nevada's Medicaid program, particularly after the Medicaid eligibility expansion to 133% FPL, will greatly enhance the State's reach and potential influence in the health care market. A federally run Exchange may not align with Nevada's health care policy priorities.

Allowing the federal government to operate the Exchange is clearly an option to consider. But in making that decision, Nevada may forego the ability to maintain its authority over what will likely be a large share of the health insurance market

and may miss the opportunity to use the Exchange to help promote broader health reform efforts.

Governance and Administration

Assuming Nevada decides to run its own Exchange, the governance structure and administration of the Exchange will be among the most important initial decisions, as these choices will have profound effects on the ability of the Exchange to meet the health insurance needs of individuals and small employers successfully.

At its core, an Exchange is a distribution channel for commercial insurance. Under federal Health Care Reform, the Exchange is also a conduit for premium subsidies and reduced cost-sharing, thereby enabling individuals – and to some extent small employers – to purchase insurance. The governance structure and administration of the Exchange will need to reflect this fundamental role.

The governance structure and administration of the Exchange may determine, among other things: 1) the overall management approach and the extent to which the Exchange will be allowed to operate outside the confines of state government; 2) the level of transparency and public accountability; 3) the manner by which goods and services will be procured; 4) staffing levels and hiring procedures; 5) the selection criteria that may be used to select health plans offered through the Exchange; and 6) the intersection between publicly subsidized coverage and commercial insurance.

The law requires that the Exchange be administered by a governmental agency or non-profit entity established by the State, providing some flexibility for Nevada to decide where to house the Exchange: (a) within an existing governmental agency, (b) in a new agency or quasi-public authority, or (c) at a non-profit entity established by the State.

The nature of the Exchange and its range of responsibilities will require an entity that is accountable to the public. Given the amount of work that will be required to set up and operate the Exchange and the inherently commercial nature of the Exchange, placing the administration of the Exchange within an existing state agency should be carefully evaluated. The high-profile nature of the Exchange and its wide-range of responsibilities suggest that the administration of the Exchange might best be placed in the hands of a new agency, a quasi-public authority, or a non-profit entity established for the express purpose of operating the Exchange.

Financing

As noted above, federal planning and establishment grants have recently become available to support the work that states will need to undertake in order to plan, design, develop and operate the Exchange. The $1 million per state maximum grants, which represent the first of what may be a number of federal grant opportunities to support the establishment of Exchanges, do not require state matching funds.

However, by statute, these planning and establishment grants cannot be renewed beyond December 31, 2014 – one year after the Exchange is to be up and running. The law requires the Exchange to be self-sustaining, and allows for the ongoing operations of the Exchange to be funded through assessments on insurers whose products are offered through the Exchange. In much the same way that insurance brokers are paid out of the premiums paid by policyholders, the Exchange will likely need to generate operating revenues through retention of a portion of the premiums or through direct payments from the carriers.

Interface with Medicaid and CHIP Programs

The expansion of Medicaid eligibility for adults and children with income at or below 133% FPL (as calculated based upon their Modified Adjusted Gross Income, or MAGI) will add tens of thousands of people to Nevada's Medicaid program; thousands more children will likely be added to Nevada Check Up; and tens of thousands of individuals and families with income up to 400% FPL will be eligible for subsidized commercial health insurance through the Exchange.

While the eligibility systems will need to be integrated to allow individuals to apply for coverage for all publicly-subsidized health programs through a single, streamlined point of entry, the State will also need to establish processes to effectively and efficiently handle the churn that will inevitably occur among these programs, as circumstances change and people become ineligible for one program (e.g., Medicaid) and eligible for another (e.g., the Exchange). Relationships and interfaces between the Medicaid/CHIP programs and the Exchange will need to be established to account for the transition between programs.

7. Recommended Approach

This section describes the recommended approach for designing, developing, and implementing an eligibility engine in the State of Nevada. It describes:

- The recommended model for the eligibility engine project.
- High-level cost estimates for the planning, design, development and implementation (DD&I) and maintenance and operations (M&O) of the eligibility engine project.
- A road map / project timeline for the DWSS and DHCFP to pursue in order to accomplish the above activities and implement the proposed model by January 1, 2014.

7.1. Recommended Model

With the advent of the Health Care Reform law, Nevada needs to find a "no wrong door" approach to determining eligibility that can be accessible to individuals who are shopping for medical insurance through:

- The Health Insurance Exchange (HIX)
- Access NV
- AMPS / NOMADS
- Nevada Check Up

The rules to determine eligibility for all publicly-subsidized health coverage programs, including the premium subsidies available under the Health Insurance Exchange, Medicaid, Nevada Check Up, and, if applicable, the Basic Health Program will require similar data. The underlying policies that determine coverage can be implemented as a set of rules in the eligibility engine that determine the appropriate publicly-subsidized health coverage program for an individual applying for coverage. Because of the overlapping needs of these business processes, in combination with a legacy system that is outdated and difficult to maintain, a solution that is external to NOMADS is highly desirable. By extracting the rules from existing legacy systems and building new rules into the eligibility engine, the engine in effect, facilitates the "no wrong door" approach.

Figure 7-1 depicts the "no wrong door" approach that will be made possible with the implementation of the eligibility engine. More specifically, it shows how someone will be able to apply for all publicly-subsidized health coverage programs, including the premium subsidies available under the Health Insurance Exchange, Medicaid, Nevada Check Up, and the Basic Health Program through the HIX, Access NV, and on paper. To guide the reader through the diagram, the steps for each access point are presented below:

HIX Scenario

1. Applicant seeks medical coverage and accesses the HIX on the Internet.
2. Applicant enters required information into an online application that is available through the HIX.
3. Income and citizenship is electronically verified.
4. If applicant is not a citizen and/or income is not correct, they are deemed not eligible and processing ends.
5. If applicant is a citizen and income is correct, their information is sent to the eligibility engine.
6. If applicant is eligible for a subsidy, their information is sent to HIX, and the recipient data is stored in NOMADS.
7. If applicant is not eligible for a subsidy, the system checks for publicly-subsidized health program eligibility.
8. If applicant is eligible for a publicly-subsidized health coverage program, information is sent through the Access NV interface (I/F) to AMPS and NOMADS, where the recipient data is stored.
9. If applicant is not eligible for a publicly-subsidized health coverage program, information is returned to HIX for Purchase Option Only.

Access NV Scenario

1. Applicant seeks medical coverage and accesses the Internet.
2. Applicant enters required information into an online application through Access NV.
3. Income and citizenship is electronically verified.
4. If applicant is not a citizen and/or income is not correct, they are deemed not eligible and processing ends.
5. If applicant is a citizen and income is correct, their information is sent to the eligibility engine.
6. If applicant is eligible for a subsidy, their information is sent to HIX and the recipient data is stored in NOMADS. If applicant is not eligible for a subsidy, the system checks for publicly-subsidized health coverage program eligibility.
7. If applicant is eligible for a publicly-subsidized health coverage program, information is sent through the Access NV I/F to AMPS and NOMADS where the recipient data is stored.
8. Applicant is not eligible for a publicly-subsidized health coverage program, information is returned to HIX for Purchase Option Only.

Paper Application Scenario

1. Applicant requests, completes, and submits paper application form to the DWSS.
2. Caseworker enters applicant's information into AMPS.
3. Income and citizenship is electronically verified.
4. If applicant is not a citizen and/or income is not correct, they are deemed not eligible and processing ends.
5. If applicant is a citizen and income is correct, their information is sent to the eligibility engine.
6. If applicant is eligible for a subsidy, their information is sent to HIX and the recipient data is stored in NOMADS.
7. If applicant is not eligible for a subsidy, the system checks for publicly-subsidized health coverage program eligibility.
8. If applicant is eligible for a publicly-subsidized health coverage program, information is sent through AMPS and stored in NOMADS.
9. If applicant is not eligible for a publicly-subsidized health coverage program, information is returned to HIX for Purchase Option Only.

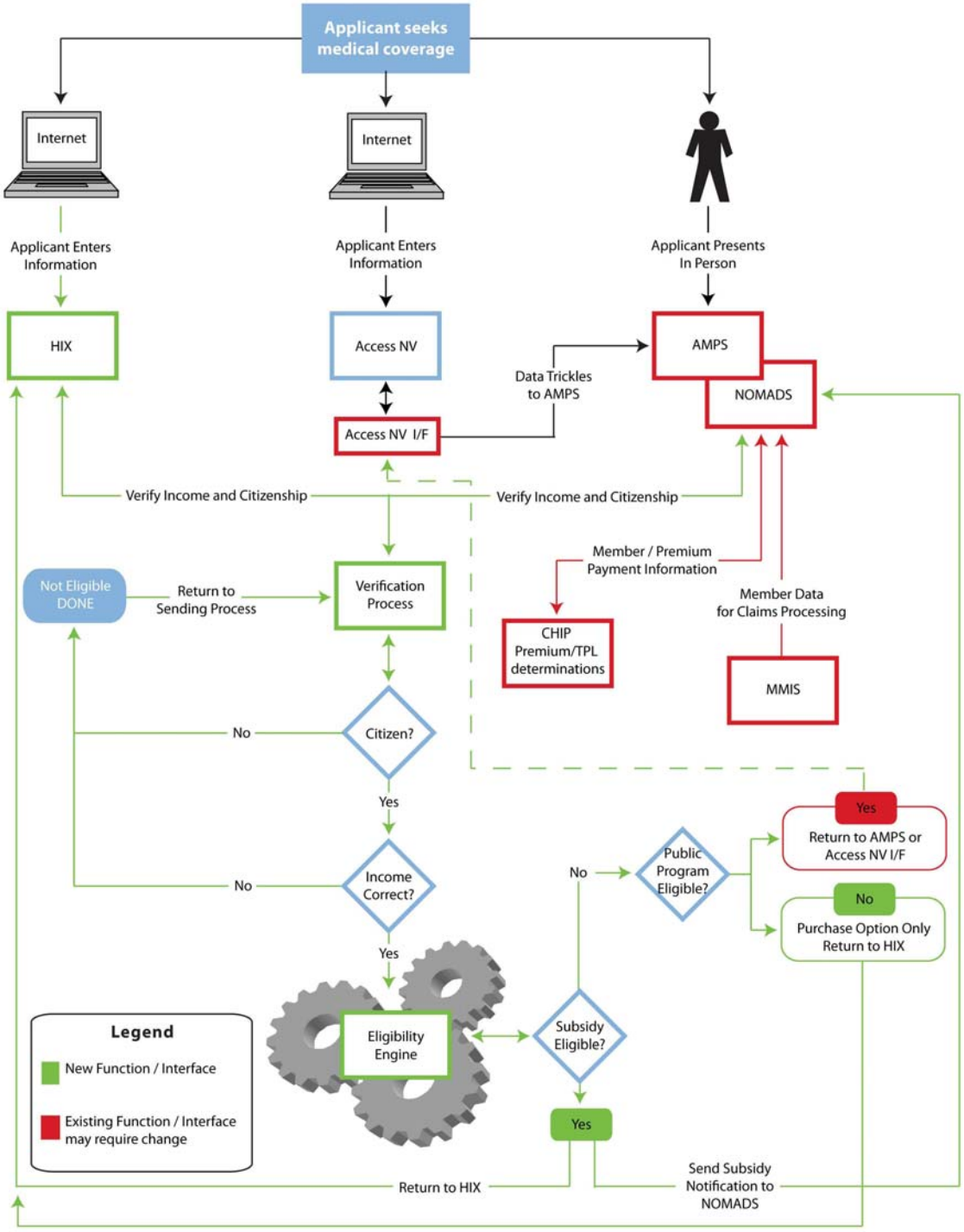

Figure 7-1: No Wrong Door Approach to Eligibility Determination

7.1.1. Estimated Project Costs

This section provides the high-level cost estimate for the eligibility engine project. The estimated one-time cost is $23,849,038. The annual ongoing Maintenance

and Operations (M&O) cost is estimated at $3,765,163. Based on PCG's estimation methodology, the preliminary cost estimate has an approximate margin of error of +/- 25% recognizing that the costs will be refined during the ensuing feasibility study. The total estimated project costs are broken out by State Fiscal Year (SFY) in the table below.

Table 7-1: Estimated Eligibility Engine Costs by Fiscal Year

Cost Item	FY 2011*	FY2012	FY2013	FY2014**	Annual M&O
State Personnel	$220,470	$387,044	$788,796	$789,922	$438,925
Planning Contractor Services	$343,663	$589,137	$0	$0	$0
DD&I Contractor Services	$0	$0	$7,473,200	$7,473,200	$0
Hardware	$0	$0	$742,538	$0	$0
Software	$0	$0	$3,029,147	$0	$0
DoIT Services	$0	$0	$0	$1,163,019	$1,163,019
Telecommunications	$0	$50,000	$0	$0	$0
CSP – EGL NOMADS Migration	$0	$0	$798,902	$0	$0
DD&I Maintenance	$0	$0	$0	$0	$1,385,426
Hardware Maintenance	$0	$0	$0	$0	$111,381
Software Maintenance	$0	$0	$0	$0	$666,412
Total SFY Cost	**$564,133**	**$1,026,181**	**$12,832,583**	**$9,426,141**	**$3,765,163**
Total One-Time Cost				**$23,849,037**	
Annual Ongoing Cost					**$3,765,163**

* Assumes start date of November 1, 2010.

** Assumes implementation date of December 15, 2013.

7.1.2. General Costing Assumptions

The assumptions that were made in developing the cost estimates are presented below:

- The eligibility engine project will receive ongoing commitment and support from executive management at the DHSS, DWSS, and DHCFP.
- Funding will be available in State Fiscal Year (SFY) 2011 and 2012 to support the Planning Phase, which will begin in November 2010 and conclude with the selection of a vendor in December 2012.

- The services of a vendor will be acquired to complete a study to determine the feasibility of implementing an eligibility engine, prepare an Implementation Advanced Planning Document (I-APD) that will be submitted to the federal government to obtain project approval and funding, and develop a Request for Proposal (RFP) to acquire a vendor to design, develop, and implement the eligibility engine. These activities will comprise the Planning Phase.
- The services of a vendor will be acquired to design, develop, and implement the eligibility engine project.
- The DWSS, DHCFP and DoIT will be required to dedicate additional state staff to the eligibility engine project in order to assure completion by January 1, 2014.
- The DWSS will serve as the primary contact for the DD&I vendor and will be responsible for providing project management, solution acquisition, and ongoing M&O.
- The eligibility engine must be implemented by January 1, 2014. In order for this to occur, the Design, Development and Implementation (DD&I) Phase is scheduled to occur from December 2012 through December 2013. The M&O Phase of the project will begin in January 2014.
- Project Management Oversight (PMO) support will be provided by the DWSS and the DHCFP. PMO support from the DWSS will begin during the Planning Phase and continue through DD&I. PMO support from the DHCFP will begin with DD&I. The expenses associated with PMO services are included in the state personnel costs. The project costs do not include the provision of Independent Verification and Validation (IV&V) services.
- The estimated costs do not take into account any changes to enrollment standards in accordance with the Public Health Service Act, § 3021 42 U.S.C. 300jj-51, which the federal government is expected to release in September 2010.

High-level summaries of the components of the total project cost are provided in the following paragraphs.

State Personnel Costs

The state personnel costs are based upon data provided by the DWSS Budget Office and are comprised of salary and benefits, insurance expenses, DoIT assessment costs, and non-personnel expenses.

A breakdown of the state personnel costs, by position and fiscal year is provided in the table on the following page.

Table 7-2: Breakdown of State Staffing Costs by Position and SFY

Personnel	Units	Grade	2011 Salary	FY 2011	FY 2012	FY 2013	FY 2014	M&O	Explanations:
Stateside PM									
IT Professional 4	1	41	$ 53,452.80	$ 31,180.80	$ 55,108.00	$ 57,363.00	$ 23,901.25		Start at Planning Phase (November 2010)
DWSS Business Process Analyst 2	1	36	$ 42,991.92	$ 25,078.62	$ 44,242.00	$ 45,991.00	$ 19,162.92		Start at Planning Phase (November 2010)
DWSS Social Services Program Specist 3	1	37	$ 44,871.00	$ 26,174.75	$ 44,871.00	$ 45,991.00	$ 19,162.92		Start at Planning Phase (November 2010)
PMO Resource									
DHFCP IT Professional 3	1	39	$ 48,942.72	$ 28,549.92	$ 50,401.00	$ 52,462.00	$ 21,859.17		Start at Planning Phase (November 2010)
DWSS IT Professional 3	1	39	$ 48,942.72	$ -	$ -	$ 28,128.00	$ 26,231.00		Start at DD&I (12/2012)
CHIP									
Business Process Analyst 2	1	36	$ 42,991.92	$ 25,078.62	$ 44,242.00	$ 45,991.00	$ 19,162.92		Start at Planning Phase (November 2010)
Business Process Analyst 2	1	36	$ 42,991.92	$ -	$ -	$ 24,704.00	$ 22,995.50		Start at DD&I (December 2012)
IT Professional 3 (Dev/Support)	1	39	$ 48,942.72	$ -	$ -	$ 28,128.00	$ 26,231.00		Start at DD&I (December 2012)
DWSS M&O Personnel									
IT Professional 3 (Prod Support)	1	39	$ 48,942.72	$ -	$ -	$ -	$ 34,974.67		Start 3 mos (10/2013) bef implementation
IT Professional 3 (Dev/Support)	1	39	$ 48,942.72	$ -	$ -	$ 24,190.00	$ 52,462.00	$ 52,462.00	Start at DD&I; stay through M&O
IT Professional 3 (Dev/Support)	1	39	$ 48,942.72	$ -	$ -	$ 24,190.00	$ 52,462.00	$ 52,462.00	Start at DD&I; stay through M&O
IT Professional 4 (Dev/Support)	1	41	$ 53,452.80	$ -	$ -	$ 26,417.00	$ 57,363.00	$ 57,363.00	Start at DD&I; stay through M&O
IT Professional 3 (Security)	1	39	$ 48,942.72	$ -	$ -	$ 24,190.00	$ 52,462.00	$ 52,462.00	Start at DD&I; stay through M&O
DoIT Personnel									
IT Professional 3 (DoIT Server Support)	1	39	$ 48,942.72	$ -	$ -	$ 52,462.00	$ 52,462.00	$ 52,462.00	Start FY 12/13; stay through M&O
Total Salaries				**$ 136,062.71**	**$ 238,864.00**	**$ 480,207.00**	**$ 480,892.33**	**$ 267,211.00**	$ 1,603,237.04
Planning Phase				$ 136,062.71	$ 238,864.00	$ 123,899.00	$ -		$ 498,825.71
DD&I Phase				$ -	$ -	$ 280,583.50	$ 347,286.83		$ 627,870.33
M&O Phase				$ -	$ -	$ 75,724.50	$ 133,605.50	$ 267,211.00	$ 476,541.00
				$ 136,062.71	$ 238,864.00	$ 480,207.00	$ 480,892.33	$ 267,211.00	$ 1,603,237.04
Total One-Time Project Staffing Costs				$ 136,062.71	$ 238,864.00	$ 404,482.50	$ 347,286.83	$ -	$ 1,126,696.04
Annual Ongoing Project Staffing Costs				$ -	$ -	$ 75,724.50	$ 133,605.50	$ 267,211.00	$ 476,541.00
				$ 136,062.71	$ 238,864.00	$ 480,207.00	$ 480,892.33	$ 267,211.00	$ 1,603,237.04
Benefits				**$ 62,726.45**	**$ 110,119.00**	**$ 207,119.00**	**$ 207,414.59**	**$ 115,251.29**	
TOTAL SALARIES AND BENEFITS				**$ 198,789.16**	**$ 348,983.00**	**$ 687,326.00**	**$ 688,306.93**	**$ 382,462.29**	
Other:									
Cat 04 Insurance Expense				$ 381.08	$ 669.00	$ 1,874.00	$ 1,876.67	$ 1,042.79	
Cat 26 DoIT Assessment				$ 342.91	$ 602.00	$ 1,687.00	$ 1,689.41	$ 938.73	
Cat 50 Non Personnel Expenses				$ 20,956.37	$ 36,789.83	$ 97,908.86	$ 98,048.59	$ 54,481.35	
				$ 21,680.37	$ 38,060.83	$ 101,469.86	$ 101,614.68	$ 56,462.87	
TOTAL STATE PERSONNEL COSTS				**$ 220,469.52**	**$ 387,043.83**	**$ 788,795.86**	**$ 789,921.60**	**$ 438,925.15**	**$ 2,625,155.97**

Planning Contractor Services Costs

The cost for contractor services is estimated to be $932,800. These costs will occur during SFY 2011 and 2012. This estimate is comprised of the cost for obtaining consulting services to conduct the feasibility study and prepare the I-APD ($580,800), and the cost to develop the RFP to acquire the DD&I vendor ($352,000). This cost estimate is based on the following:

- PCG's experience in conducting similar engagements. For comparative purposes, the table below provides seven recent projects that have included the development of a feasibility study and/or I-APD with an indication of the levels of complexity and effort associated with each project.
- PCG's consideration of the level of complexity associated with the NV eligibility engine project is between "High" and "Very High."
- This level of complexity indicates a level of effort of 3,300 hours. Experience has shown that feasibility studies conducted in association with the development of an I-APD require a 10% increase in the total level of effort, resulting in an additional 330 hours to develop the I-APD.
- Using a total of 3,680 hours at an hourly billing rate of $160 (reflecting a true bill rate of $125/hr with an additional $35/hr for expenses) equates to a total of $580,800 to conduct the feasibility study and prepare the I-APD.

Table 7-3: Feasibility Study / I-APD Engagement Efforts

Project	Complexity	Effort (Hours)
CA Statewide Offender Management System – an analysis to replace a paper-based offender management process with a statewide automated system	Very high	4,100
CA Enterprise Enrollment Portal – a study to determine the feasibility of implementing a statewide enrollment and eligibility determination portal for over ten health and human services programs	High	2,400
CA Enhance Enterprise Storage – a feasibility study to analyze how the State data center could implement a next generation of storage	High	2,200
WA Provider Payroll – a feasibility study for the implementation of a provider payroll system	Medium	2,000
CA Statewide Controllers Accounting System – a feasibility study to replace the State Controller's Office aging accounting system	Medium	1,700
MT Child Welfare System – a feasibility study to investigate the replacement of the Montana Statewide Child Welfare System	Medium	1,500
CA Child Health and Disability Prevention (CHDP) Program – a feasibility study to analyze the replacement of a rudimentary electronic enrollment system	Low	1,000

The estimated cost for acquiring consulting services to develop the RFP for the eligibility engine project is $352,000. This cost estimate is based on the following:

- PCG's experience in developing RFPs. For comparative purposes, Table 7-2 provides four recent projects that have resulted in the development of a RFP with an indication of the levels of complexity and effort associated with each project.
- PCG's consideration of the level of complexity associated with the NV eligibility engine project is between "High" and "Very High."
- This level of complexity indicates a level of effort of 2,200 hours. These efforts do not include any hours after the RFP is released to support vendor selection.
- Using a total of 2,200 hours at an hourly billing rate of $160 (reflecting a true bill rate of $125/hr with an additional $35/hr for expenses) equates to a total of $352,000.

Table 7-4: RFP Engagements

Project	Complexity	Effort (Hours)
CA Statewide Offender Management System – a RFP to replace a passed based offender management process with a statewide automated paperless system	Very high	2,600
CA Enterprise Enrollment Portal – a RFP for implementing a statewide one stop shopping portal to enrollment in public benefits	High	1,800
MT Child Welfare System – a RFP for the replacement of the Montana statewide Child Welfare System	Medium	1,400
CA First Five Commission – a RFP for the development of a mandated reporting application	Low	1,100

Based on a project start-up date of November 1, 2010, the estimated consulting services costs in SFY 2011 will be provided over seven months. In SFY 2012, these costs will occur until the release of the RFP for the DD&I contractor, which is scheduled in May 2012.

Estimated DD&I Costs

The total estimated cost for the DD&I contractor is $14,946,400. These costs were developed based on information gathered from the DWSS and DHCFP staff in the business and IT areas to identify the need for new development and/or modifications to existing systems and interfaces. Using that information, PCG's estimation methodology employs several metric-based models: 1) Function Point Analysis; 2) Analogy Model; and 3) a proprietary variation of the Wideband Delphi Model, which are described below.

The Function Point Analysis (FPA) model is an internationally recognized methodology developed by IBM for determining the overall size of a software application. It is one of the most common techniques for estimating management information system (MIS) application size. In its simplest terms, function points count the externally visible aspects of software products: 1) inputs to an application; 2) outputs from an application; 3) user inquiries; 4) the data files updated by the application; and 5) the number of interfaces to other applications. These items are then weighted by their complexity – the relative difficulty of implementing each. Once adjusted by their complexity factors, the total of all these represent the function point count of the application.

The Analogy Model estimates program size by comparison with one or more software applications with a similar user base and scope of business process support. The list of candidate comparable applications is culled from several sources: for public sector application development, the costs for other state's similar implementations; for private sector applications, the cost data for similarly sized, functionally equivalent systems.

The last model is an experiential-based model maintained by PCG Technology Consulting based on their experience of working as a Quality Assurance and Independent Verification and Validation (IV&V) consultant on a number of government and private sector systems.

These results are used to provide estimated project effort, scheduling, and costs.

Each model produces an independent high and low cost estimate for the development of an application. After close examination of the range of estimates based on the different models and approaches, a consensus estimate is reached using triangulation based on the low and high estimates from all models.

The DD&I costs cover the following work needed to implement the eligibility engine and changes to current systems:

- New screens and processing to accommodate input from the Exchange through AMPS/NOMADS
- New screens and processing to accommodate CHIP in AMPS/NOMADS
- Changes to current AMPS/NOMADS screens to accommodate the new Exchange and Eligibility Engine data
- Changes to current NOMADS batch jobs and reports to reflect the new Exchange and Eligibility Engine data
- New or changed interfaces to MMIS, CHIP, Internal Revenue Service, Social Security Agency, Homeland Security, the Exchange, and the Eligibility Engine
- New reports and Notices of Action (NOA)
- New data files
- Transfer and translation of eligibility rules from NOMADS to the Eligibility Engine
- Programming of new eligibility rules to support Health Care Reform

Hardware Costs

The hardware costs for the eligibility engine project are estimated to be $742,538, based on discussions with the DWSS and DHCFP IT staff and cost information provided by Solutions II. The hardware costs allow for three new servers at the DHCFP and two IBM Power P770 servers.

Software Costs

The software costs for the eligibility engine project are estimated to be $3,029,147, based on information provided by the DWSS and DHCFP IT staff.

The software costs primarily consist of software licenses for the following products or tools:

- Data encryption
- DB2
- DB2 Connect
- iLog jRules
- WebSphere process server
- WebSphere portal server
- Rational Rapid Application Tool

In addition, these costs allow for system security and other system architect tools.

DoIT Costs

The DoIT costs for the eligibility engine project are estimated to be $1,163,019. These costs are based on DoIT's cost schedule and represent ongoing M&O expenses that are primarily comprised of increased CPU costs and hosting needs.

Telecommunications Costs

The telecommunications costs for the eligibility engine project are estimated to be $50,000, based on discussions with the DWSS IT staff. These costs are to upgrade existing telecommunications in the DWSS' Fallon and Pahrump offices.

CSP – EGL NOMADS Migration Costs

The CSP – EGL NOMADS migration costs are estimated to be $798,902, based on the costs estimated in the DWSS' *CSP Migration TIR* dated May 21, 2010.

DD&I Maintenance Costs

The annual DD&I maintenance costs for the eligibility engine project are estimated to be $1,385,426, which represents 15% of the total DD&I costs.

Hardware Maintenance Costs

The hardware maintenance costs for the eligibility engine project are estimated to be $111,381, which represents 15% of the total hardware costs.

Software Maintenance Costs

The software maintenance costs for the eligibility engine project are estimated to be $666,412, which represents 22% of the total software costs.

7.2. Timeline

This section provides a proposed timeline for performing the activities that will be required to obtain approval for proceeding with and implementing the eligibility engine project. It presents an aggressive schedule in order to meet the Health Care Reform deadline of January 1, 2014. The underlying assumptions that were used, based on direction provided by DWSS management, include the following:

- In order for the DWSS and DHCFP to implement the eligibility engine by January 1, 2014, ongoing support and commitment will be required from executive level management.
- The Eligibility Engine DEC Unit will be approved.
- The timeline will encompass the development of a P-APD, a feasibility study, an Implementation Advanced Planning Document (I-APD), and a Request for Proposal (RFP) in order to secure funding for, and acquire assistance from, a vendor to design, develop, and implement the eligibility engine.
- The DWSS will develop the TIR and the Planning Advanced Planning Document (P-APD) for the eligibility engine project. The TIR and the P-APD will be developed upon the completion of the current eligibility engine project by January 1, 2011.
- The DWSS and the DHCFP will seek assistance from an outside vendor to develop the feasibility study, I-APD, and RFP.
- Five-day review cycles will be allowed for the DWSS/DHCFP review and finalization of documents prepared.
- Project deliverables associated with obtaining federal funding and acquiring an outside vendor to design, develop, and implement the eligibility engine will not be subject to review from outside stakeholders (e.g., advocacy groups, etc.).
- Information will be suitable for budgetary approval through the normal legislative process.
- Existing funding/budgetary authority will be available to support the commencement of the project by November 1, 2010.
- The DWSS will acquire project management support to assist with the planning phase, which will commence with CMS review and approval of the P-APD.
- The development of the RFP will commence with CMS' review of the I-APD.

The anticipated schedule for the proposed timeline is presented on the following pages.

Table 7-5: Proposed Timeline for the Eligibility Engine Project

Milestone	Start	Duration	Finish
Develop P-APD	November 1, 2010	2 months	January 1, 2011
CMS review and approval	January 1, 2011	2 months	March 1, 2011
Acquire contractor to conduct feasibility study and develop the IAPD and RFP	January 1, 2011	5 months	June 1, 2011
Conduct feasibility study / develop IAPD	June 1, 2011	5 months	November 1, 2011
DWSS / DHCFP review	November 1, 2011	1 week	November 8, 2011
CMS review and approval	November 8, 2011	2 months	January 8, 2012
Develop RFP	November 8, 2011	4 months	March 8, 2012
DWSS / DHCFP review	March 8, 2012	1 week	March 15, 2012
CMS review and approval	March 15, 2012	2 months	May 15, 2012
Release RFP	May 15, 2012		
Receive vendor responses	May 15, 2012	3 months	August 15, 2012
Select vendor / contract award	August 15, 2012	2 months	October 15, 2012
CMS approval of contract	October 15, 2012	2 months	December 15, 2012
Design / develop	December 15, 2012	1 year	December 15, 2013
Full Implementation	December 15, 2013		
Maintenance and Operations (M&O)	December 15, 2013	5 years	December 15, 2018

Table 7-6: Proposed Calendar Year Project Gantt Chart

ID	Task Name
37	**Nevada Eligibility Engine Project**
38	Develop P-APD
39	CMS review and approval
40	Acquire contractor for planning phase
41	Conduct feasibility study / develop IAPD
42	DWSS / DHCFP review
43	CMS review and approval
44	Develop RFP
45	DWSS / DHCFP review
46	CMS review and approval
47	Release RFP
48	Receive vendor responses
49	Select vendor / contract award
50	CMS approval of contract
51	Design / develop
52	Full Implementation